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Centre d'Ecologie Fonctionnelle et
Evolutive (C.N.R.S.),

PAUL ISENMANN

B.P. 5051,

F-34033 Montpellier,

France.

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AN EXTRA RECTRIX IN THE SMALL GREEN BEE-EATER

Birds with an abnormal number of rectrices either have an unequal number of feathers on the two sides or an additional or missing pair (Somadikarta 1984, Hanmer 1985). Here we report a case of one additional central tail feather found in a specimen of the Small Green Bee-eater *Merops orientalis*.

A total of 131 Small Green Bee-eaters was collected from the field area of the Punjab Agricultural University, Ludhiana (30°56'N, 75°52'E; c. 247 m above mean sea level) for morphometry and food studies, and examined for moult. Of these, one collected on 13 September 1985 had three instead of two central rectrices prolonged into blunt pins. The other five pairs of rectrices were normal. The three central tail feathers and the first (adjacent to central), second and fifth pairs had completed the moult; the third and fourth pairs were moulting, the former having attained two-thirds and the latter between one-third and two-thirds of the length of a fully grown feather. The bird, an adult male, was normal in all respects except that its weight was distinctly low (13.2 g) compared to the average weight (16.8 ± 1.2 g, mean \pm s.d.; $n = 129$) for this species.

Abnormal numbers of rectrices have been reported in many species of birds (Ginn & Melville 1983, Hanmer 1985, Melville 1985, Saini & Toor 1988). In the family Meropidae, however, only one case has been reported, in an individual of *Merops pusillus* which had one pair less than the normal number of rectrices (Hanmer 1985). The abnormality reported here is the only case known to us of an additional central rectrix. Hanmer (1985) examined over 23,000 birds belonging to 16 families and found that the central pair of rectrices was never aberrant. It has been suggested that extra pairs of remiges/rectrices recorded in some birds are of phylogenetic origin (Hanmer 1985, Saini & Toor 1988), which does not seem to be applicable in the present specimen because only one extra rectrix was recorded. Therefore, the recorded extra rectrix seems to be a result of some developmental abnormality.

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Department of Zoology,
Punjab Agricultural University,
Ludhiana-141 004,
India.

MANJIT S. DHINDSA
HARJEET K. SAINI

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SEYCHELLES SUNBIRD *NECTARINIA DUSSUMIERI* PIERCING FLOWERS

It is well known that certain species of sunbird Nectariniidae pierce the base of larger tubular flowers from which they cannot otherwise obtain nectar. According to Gill (1985, in *A Dictionary of Birds*, eds B. Campbell & E. Lack), this habit is normally displayed only by short-billed species though Ali & Ripley (1983, *Handbook of the Birds of India and Pakistan*) give details of two longer-billed species that pierce the base of larger flowers: *Nectarinia lotenia* (bill length 26–29 mm) and *Aethopyga siparaja* (19–23 mm). The Seychelles Sunbird *Nectarinia dussumieri* is one of the longer-billed species, the bills of eleven specimens at the British Museum measuring 24 or 25 mm (seven males) and 23 or 24 mm (four females) (P. Colston, *in litt.*). It thus might be expected to feed by inserting the bill into the mouths of flowers, though there appear to be no published descriptions to confirm this.

I watched a number of individuals feeding on the island of Praslin in October and November 1990 and the majority indeed fed in this way, but at least one female, and possibly others, also fed by piercing the perianth at the base of the tubular flowers on a bush in a hotel garden. These flowers, some 60 mm long, opened and remained on the plant only for one day so that early in the morning few or none of the flowers were pierced, but by late afternoon 90 per cent or more had been attacked. The perianth was comparatively thick and the sunbirds did not always succeed in piercing a hole at the first attempt. In the afternoon, when many flowers were pierced, sunbirds would return and apparently feed at already pierced blossoms. They were also seen feeding conventionally at these flowers by inserting the head and bill into the mouth of the trumpet. I also saw female sunbirds in the same garden twice apparently attempting to pierce the base of *Hibiscus* flowers, but without success, these being much tougher than the flowers that were pierced. On one of these occasions the